CORONASYS INNOVATION SHEET 42

SAFEZONE

Background

Over the course of the pandemic, several approaches have been discussed with regard to infection prevention. Social distancing is one of the measures that are provenly effective in containing the spread of SARS-CoV-2[12]. But particularly in the work environment where ones mind is occupied with other things, people tend to forget to keep the distance required to effectively prevent transmission. The SafeZone is one example of proximity detectors invented or augmented in the last months to meet the requirements of the pandemic.

State of information: 01/13/2021

Launch : 2020

Country: Germany

Focus area: Prevention

Developers: Kinexon

Beneficiaries: Employees at offices or factories

Features

The German start-up Kinexon[3] has developed a sensor system called SafeZone. The sensors are smart and can be integrated into wristbands. The technology tracks distance using ultra-broadband signals and gives an acoustic and visual alarm when the set distance of 1.5m is not maintained[4]

Potentials

The technology is helpful to encourage employees to maintain the appropriate distance and currently used by more than 200 companies worldwide[5]. The system could also have a behavioural aspect: through the acoustic warning tones, the sensors "punish" violations of social distancing, which could change people's behaviour in the long run.

Points to consider

As often with movement tracking devices, there are some concerns regarding data safety and privacy issues[6]. Not only do the sensors track who engages with whom but they theoretically enable the managements to constantly keep tabs on their employees' movements[7].

Conclusion

The sensors might be helpful in ensuring adherence to social distancing guidelines, but companies should make sure to consider the privacy rights of their employees with regard to the data used.

[1] Chu, Derek K., Elie A. Akl, Stephanie Duda, Karla Solo, Sally Yaacoub, Holger J. Schünemann, and COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors. "Physical Distancing, Face Masks, and Eye Protection to Prevent Person-to-Person Transmission of SARS-CoV-2 and COVID-19: A Systematic Review and Meta-Analysis." Lancet (London, England) 395, no. 10242 (June 27, 2020): 1973–87. https://doi.org/10.1016/S0140-6736(20)31142-9.

[2] Deutsches Ärzteblatt. "Physikalisches Modell bestätigt Strategie des Social Distancing in der..." Deutsches Ärzteblatt, November 16, 2020. https://www.aerzteblatt.de/nachrichten/118372/Physikalisches-Modell-bestaetigt-Strategie-des-Social-Distancing-in-der-Pandemie.

[3] Kinexon. "Präzise Echtzeit-Lokalisierung Kombiniert Mit Innovativen Analysen," 2021. https://kinexon.com/de.

[4] Schuetze, Christopher F. "On Factory Floors, a Chime and Flashing Light to Maintain Distance - The New York Times," January 12, 2021. https://www.nytimes.com/2021/01/12/business/kinexon-safezone-wearable-tech.html.

[5] Kinexon. "COVID-19 eindämmen." KINEXON, 2021. https://kinexon.com/de/safezone.

[6] Singer, Natascha. "The Hot New Covid Tech Is Wearable and Constantly Tracks You - The New York Times," November 15, 2020. https://www.nytimes.com/2020/11/15/technology/virus-wearable-tracker-privacy.html.

[7] Schuetze, Christopher F. "On Factory Floors, a Chime and Flashing Light to Maintain Distance - The New York Times," January 12, 2021. https://www.nytimes.com/2021/01/12/business/kinexon-safezone-wearable-tech.html.

Background on Innovation Sheet Series

As part of a real-time evaluation of the SARS CoV 2 pandemic (with focus on epidemiological, medical, economical, societal, technical, and cultural developments in Germany and Armenia) the CoronaSys research team, under the leadership of Prof. Dr. Martin Voss, is conducting a continuous monitoring of developments and medical, technical, and social innovations concerning Covid-19.

Multiple national and international media outlets, research platforms, and scientific and organizational guidelines, briefs, and updates are screened to feed into this outlet. The rationale behind this is to support the projects' network partners in Armenia and Germany with short summaries of key developments and promising innovations that are shaping the global, German, and Armenian outbreak response and recovery.

The aim of these short briefs is to give condensed and structured information on selected innovations emerging out of the conducted horizon scanning. This could be mainstream big-ticket items or fringe subjects that are easily overlooked in the global flood of information. Some innovations will be followed through their evolution in time while others may only appear once. While subjectively selected, the briefs are descriptive in nature and leave analysis and critical interpretation to the reader. Network partners in both countries are invited to provide feedback on their interest areas and suggest particularly relevant topics for the CoronaSys Workshop series.

The CoronaSys Innovation Sheet Series is published by the Academy of the Disaster Research Unit, which is, as a non-profit limited liability company, a spin-off of the Disaster Research Unit at the Free University of Berlin. The series is part of the research project "CoronaSys: Addressing the corona pandemic in Armenia through systemic risk management", sponsored by the German Federal Ministry of Education and Research.

If you have any questions, suggestions, or if you wish to be taken on (or off) the project mailing list for CoronaSys updates, innovation sheets, and workshop invitations, please send a message to Janina Schäfer (schaefer@a-kfs.de). For general project inquiries, you may contact the team lead Sara Merkes (merkes@a-kfs.de) or the project lead Martin Voss (voss@a-kfs.de).

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2 “Dyphox” Surface Coating
3 MOVES SLC Portable ICU
4 Portable TRI- KLEEN 500UV
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8 Corona Traffic Light
9 Aproof at Home Antibody Test
10 IVAT Hygiene Tower
11 LY-CoV555 Antibody Treatment
12 4C Mortality Score
13 Regional Corona Prediction Model
14 Computer-designed Mini- Proteins
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All previous CoronaSys Innovation Sheets are available online:
http://coronasys.a-kfs.de/category/innovation-stream/

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